

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "Arjen Raateland, SYKE/YV, puh. 90-4030 0457" <Arjen.Raateland@vyh.fi>
Subject: [604] 8 Ohm headphones
Message-ID: <01HY7N9JM9UA8Y5NDA@vyh21.vyh.fi>

>Well, here I am aligning my Explorer (again, thanks to all who
>responded) and I have a new "problem". Where does one get 8 ohm
>headphones??? Dick, at OHR, suggested a pair from Kenwood. He
>thought they were \$60 but AES in Milwaukee (and other places) says
>\$80- for the pair. I realize they are probably excellent phones but
>is there something else??
>
>What about using a little button earphone that comes with cassette
>machines??
>72 de Tim WB9NLZ
>

I find that while 8 Ohm headphones may give good volume they make for unpleasant listening when used as such. This is because the volume control, which is usually before the audio amplifier IC needs to be turned down very much and that attenuates the wanted signal audio, but not the annoying high frequency hiss that the audio amplifier IC's themselves produce.

Button type earphones are 16 Ohms a piece and if wired in series it makes for a load of 32 Ohms. That is better for the audio signal to noise ratio, but not good enough yet. You may want to add a simple low pass filter with a small resistor and an electrolyte cap in series with the phones. The filter could be fitted in a connecting cable.

600 Ohms headphones don't have the problem with the hiss even if they are HiFi (I use a pair of Sennheisers, but the available audio power isn't enough for use in a noisy environment.

These are my experiences with an OHR QRP Spirit.

Sometimes the audio amplifier circuit can be changed to mitigate the hiss. There have been some suggestions towards this end in SPRAT, and perhaps in other QRP magazines as well.

Not all audio IC's seem have this noise problem. I have a LOWE HF-225 Europa GC RX and there is no hiss. No extra low pass after the audio amplifier either I don't recall the IC type. It may have been a Japanese type number. The TDA2002 and TDA2003 are purportedly better than the often used LM386, but I haven't tried these out, yet.

gl, Arjen

Arjen Raateland
Suomen Ympäristökeskus / YV

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From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "rohre" <rohre@arlut.utexas.edu>
Subject: [643] A method to errata and corrections
Message-ID: <n1394460299.62996@msmailgw1.arlut.utexas.edu>

Jeff and others probably are looking for a way to handle Cascade or other updates in an efficient manner.

Try as we will, errors or changes are a way of technical life. Why, I just posted a comment on parallel twin lead line, and after it echoed, I see I said "lost" for "loss", and at least one more typo. But I hope the intent was clear.

Errors that were obvious in 73, or QST used to make me very nervous to build anything from scratch. Now I know to wait a month, and the glaring omissions or drawing glitches will be footnoted in the next issue, (hopefully).

A way to handle a succession of errata and updates is as HP used to do it in their technical manuals. As each errata sheet came, it was dated and filed in the manual and I would enter the correction also directly in the affected manual text. That way, I had both the errata sheet in full to check later, and the item was written in a noticeable ink right where it would do the most good. Long explanations could be xeroxed, and cut and pasted.

What is rough is to wait until you have a stack of them. Better to enter each as it comes but you do what you have to do. Sometimes commercial manuals are not reprinted for years if ever! Small companies may not be as expert as an HP or Tektronix at technical publication, thus consider that documentation quality and completeness, should be one criteria in selecting a kit vendor.

Hope that helps-
Stuart K5KVH
rohre@arlut.utexas.edu

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: H Smith <hbs@crl.com>
Subject: [637] Attention DFW Hams (2nd notice)
Message-ID: <Pine.SUN.3.91.951129121853.14380A-100000@crl14.crl.com>

Attention Dallas / Fort Worth area Hams!

This Saturday, December 2, 1995, at 10 AM, is the monthly North Texas QRP Club (NORTEX) meeting.

This is the annual HOLIDAY POTLUCK LUNCHEON meeting, bring your favorite dish and/or caserole.

A 1996 ARRL Handbook, donated by K5F0, will be given away as a door prize!

Also, bring your favorite QRP rigs and other Ham goodies for a show-and-tell. (I hear that the new GM-20 and GM-30 by NN1G will be there).

This is your chance to meet some great folks, check out some popular QRP rigs, and enjoy some good eats.

Remember, 10 AM Saturday. DON'T MISS IT!

Directions to the meeting are:

First floor of the building on the southeast corner of Arapaho and Addison Rd. It's one block north of Beltline. Quorum Centre is the name of the building - three stories glass and brick.

Come into the main entrance and follow the signs to the SGI Training room.

CU There,

Smitty, NA5K

Days - (214) 333-6077

Henry Smith (hbs@crl.com)

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Aa4xx <aa4xx@nando.net>
Subject: [644] Beacon Results
Message-ID: <Pine.SUN.3.91.951129174121.16932A-100000@parsifal.nando.net>

November 29, 1995

Hi Gang,

Thanks to everyone who listened for the 40 Meter
250 microwatt beacon this past Friday and Saturday. Two
people successfully copied the codeword "Gobble."
I thought you might be interested in their rx stations:

Name	Call	QTH	Distance	MPW
Bob Nygren,	WA3YON	Sweet Valley, PA	404 mi	1.6 Million MPW
Receiver - Ten-Tec Paragon		Antenna - GAP Voyager		

Danny Gingell, K3TKS	Sulphur Springs, MD	245 mi	980,000 MPW
Receiver - QRP +		Antenna - Vertical Loop	

I was quite impressed that Bob and Danny could pull out
the microwatt beacon signal in the midst of the DX contest.
My congratulations to them both! It's interesting that both
stations listened on horizontal loops without being able to
copy the beacon. Given the rather short distances involved,
I would not have given much thought to using a vertically
polarized receiving antenna. I'm glad they did!

Additional trials will take place during a week long
period between Christmas and New Years at moderate to
extremely low power levels. To my knowledge, nobody has
copied a codeword below 100 microwatts over a path greater
than 300 miles on 40 Meters. Let's see if we can change
that! Anybody who copies at that power level will be charting
a new frontier, with a very impressive 3 Million MPW
accomplishment.

72 and Happy QRPing to all,

Paul, AA4XX (Raleigh, NC)

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: AA10C@gnn.com (WILLIAM STUDLEY)
Subject: [652] Beacon results
Message-ID: <199511300247.VAA28146@mail-e1a.gnn.com>

Sorry Paul, didn't hear the beacon here at all, but will be listening agn tmw. Yes you were 579 here afterwards, but the QRM from a QRO station down 400Hz buried you, even with the plus' filter shut all the way down :-)
Hope to talk to you soon,
Bill

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: AA10C@gnn.com (WILLIAM STUDLEY)
Subject: [653] Beacon results
Message-ID: <199511300254.VAA31585@mail-e1a.gnn.com>

Sorry Paul, didn't hear the beacon here at all, but will be listening agn tmw. Yes you were 579 here afterwards, but the QRM from a QRO station down 400Hz buried you, even with the plus' filter shut all the way down :-)
Hope to talk to you soon,
Bill

<got a message from mailserver:
Some messages that you have sent were damaged in transmission and were unable to be retrieved by the addressee. So here it is again. Didn't hear you on Saturday either :-(
Guess it's the I-net equivalent of the snailmail: Sorry but your letter got eaten by a reader/sorter. Oh well. 72

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Jeff Gold <JMG@tntech.edu>
Subject: [618] Cascade Manual
Message-ID: <01HY7JIMSZT08ZHNT@tntech.edu>

All,

Got MANY responses about the Cascade instruction confusion. Seems that there are still a bunch of use out there waiting for things to become clearer. Some confusion about changing out Caps to silver mics and which mods to do or not to do.

Some of us would be willing to pay.. or at least offer a free meal :-) for a single correct document. Guess if we could make a wish it would be that someone of great knowledge and power over QRP..SSB would take the original instructions and revise it to include all the changes that were simple and minor mistakes, and then add the recommended mods that are pretty well established as almost being needed or greatly desired, and then put the remaining suggested mods at the end of the manual. If I am not mistaken the Wilderness Norcal doc was something like this.

When I get things straightened out .. would love to do an article for the Quarterly or 73 on the kit.. and guess it is just an anxiety level and not really the kit's fault.

have a gud'un

73

Jeff

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: dsa@apollo.hp.com
Subject: [627] Coax vs Twin-Lead (300 Ohm)
Message-ID: <199511291733.MAA104714@nss2.CC.Lehigh.EDU>

Hi Folks,

Was just given 100' of very high quality 300 Ohm slotted twin lead. Anyway, I've heard that carrier current in twin lead may be influenced by nearby metal objects thus creating losses and stray RF. I'm yet to find any documentaton to support that. So is this the case? Losses due to nearby metal objects? I finally figured a way to put up a clandestine 40m mono-band dipole and am considering feeding it with this stuff. But, if the losses are going to be too great I'll use coax instead. The feedline MUST run past, right next to, and even parallel to several metal objects (gutters, galvanized flashing, etc.). I apologize if this is a stupid question but the

ARRL books I have dedicate very little text to twin lead and focus mostly on ladder line and various coax. 'course that may tell me something already...

Any constructive input you may have would be appreciated.

Thanks,
-Dale

=====
Dale S. Anderson
Hewlett-Packard, Co
SMD0-E&W NPI Process, Software Development Engineering
Exeter NH, Chelmsford Ma, Roseville and Cupertino CA
..but telecommuting from, HP CIO-FC, Fort Collins, CO
=====

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Mike Robinson <miker@cc.com>
Subject: [620] Coffee Can Balun
Message-ID: <9511291619.AA17710@voder.nsc.com>

Someone was asking yesterday if the "Coffee Can Balun" was a for real thing. It sure is. In the ARRL Antenna Handbook, copyright 1991, on page 26-12.

It's not called a coffee can balun in the book, but it was introduced to me that way, before I got the book.

By winding a certain number of turns of coax at about 6" diameter, any current that might flow in the braid is choked off by a small inductance. At HF, the amount of current is related to the ratio of the length of the dipole legs and the diameter of the coax.

Of course at 40m this is a big ratio so the balun works quite well. At VHF and UHF the ratio is very small so other means are required.

..because you can use a 2lb. coffee can as the coil form, that's why it's called that. I thought I heard someone asking. Just remember to remove the coffee

can before raising the dipole. ;^}

The balun should be placed as close to the feedpoint as possible.

I've had great success with the coffee can balun.

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=====
7.3 de Michael aa0ub | QRP:
miker@cc.com Norcal #857 CQC #180 | "UR HB 5W FB HR 72"
=====
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From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Joe Spencer <jspencer@metronet.com>
Subject: [616] FOX
Message-ID: <Pine.HPP.3.90.951129085032.20191A-100000@fohnix.metronet.com>

Hi Gang,

The Fox was loud here in Arlington, TX last night. Heard Paul in many place around the designated freqs. and worked him despite a few local QRO stations. I am using a homebrew multiband dipole and my Radio Shack DSP help cut thru the noise and QRM.
72 Joe KK5NA

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "'AB7HI' Stephen Lee" <slee@u.washington.edu>
Subject: [601] Fox among wolves
Message-ID: <Pine.A32.3.91j.951128201856.34497A-100000@homer15.u.washington.edu>

Got home just in time to hear a FOX call. Attempted a contact but 2 QRO stations began a QSO. Then there was digital station on the same frequency. Second Tuesday now that I've been blown off the band by QRO stations. Was interesting listening to the lengthy tune-up sessions between the several QRO stations. Oh well. Looking forward to Thursday's Fox.

Stephen Lee, AB7HI
slee@u.washington.edu

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "Poinsett, Benjamin F." <POINSEBF@f3groups1.fsd.jhuapl.edu>
Subject: [609] FT 243 Crystal Sockets
Message-ID: <30BBDBF4@fsdsmtpgw.fsd.jhuapl.edu>

A few days ago I saw someone else on the list is looking for FT 243 XTAL sockets. Is there a source for these puppies or have they disappeared from the electronic market place? I guess I'll have to solder to the pins of the crystal holders? I don't want to use an octal tube socket in a small rig. Are there any of these FT 243 sockets still available? I sold my trusty DX-40 about five years ago so can't steal the sockets from it.

72/73,

Ben, K3BP.

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: ruswhite@netwest.com (Russell W. White)
Subject: [647] Holiday Spirits Sprint CQ?
Message-ID: <199511300037.RAA01117@saguaro.netwest.com>

How do you call or recognize a CQ for the sprint?

72 & tnx de AB7JX
Russ White AB7JX (ex WB1GQG) QRP-ARCI NORCAL NEQRP
Phoenix AZ

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>
Subject: [602] IF filtering/gain question
Message-ID: <3717.817623588@safety.ics.uci.edu>

I am reworking a Kenwood TS 130V and just added another crystal filter (two 8 pole filters, monolithic design), and I plan to move the noise blanker in before both filters. I also want to add a little more IF gain, got a Ten Tec wideband RF preamp and plan to stick it in there at the 9 MHz stage. Would it make sense to put it before

both filters, or in between, or after? I figured to put it between the two filters, but it is just a sense I have.

I also have to do some impedance matching, the preamp has 50 ohm input and output, whereas the filters are 2 K input and output. Any hints on how best to do this? Wind two little toroids? Where would I get design info on how to do it?

Along similar lines, the mixer stage uses a pair of 3SK74's. Anyone ever replace these to come up with a mixer capable of more signal handling? I get easily overloaded with an outboard preamp, and wondered where I could improve this situation. I think my 130 uses the bandswitch to switch in the bandpass filters for the receiver, so diodes are not the problem.

Any ideas?

Clark
WA3JPG

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "Bradley Mugleston" <bmugleston@dtus.com>
Subject: [628] ITS HERE - OHR EXPLORER II
Message-ID: <9510298176.AA817674726@cc2.dttus.com>

Its 10:35 am and I'm at work. My wife just called and I just got a box from OHR. Should I quit my job and go home??? Maybe I'll just get sick for the next few weeks. I'm not sure I can wait much longer.

Any on else got there's? Any problems? Any hints (this is my first kit).

Got to go figure out how to get home early..

BRAD KBØROL

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: ashworth@plaza.ds.adp.com (Dennis Ashworth)
Subject: [624] LogWindows Reflector Activated
Message-ID: <9511291707.AA01001@adphdw20>

Fellow QRP'ers:

I am pleased to announce the establishment of a reflector for the LogWindows logging/station control software. If you currently use LogWindows, or are contemplating purchase of a logging program, feel free to subscribe.

Send message to: LogWindows-request@ve7tcp.ampr.org

Subject: <leave blank>

In the text, enter: subscribe <your address>

This service was established on private initiative, as an information forum for present and future LogWindows users, and is in no way associated with AEA, the manufacturer of LogWindows.

If you have any questions, feel free to contact me at the address below.

73's

Dennis, K7FL

Oregon City, OR

ashworth@hevanet.com

From qrp-l@lehigh.edu Thu Nov 30 03:06:00 1995

From: Mike Robinson <miker@cc.com>

Subject: [635] MercWetReedSwitch

Message-ID: <9511292014.AA00360@voder.nsc.com>

Days ago, someone was looking for some mercury wetted reed switches.

Randy's Electronics Supply Co

has a box full of the following:

MidTex 160-451 PL1 10078108

he's asking \$1.25ea and will break for quantities.

They are about 1.5" long x .5" high x .75" wide with 5 pins, 2 at one end and 3 at the other.

Randy's Electronics Supply Co
2236 W. 1st St.
Loveland, CO
970-635-9656

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=====
7.3 de Michael aa0ub | QRP:
miker@cc.com Norcal #857 CQC #180 | "UR HB 5W FB HR 72"
=====
```

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: paxton@sound.net (frank paxton iii)
Subject: [625] MORE dx on 17 meters
Message-ID: <199511291713.LAA16082@sound.net>

i continue to be amazed by 17 m. today at 11am local (kansas city) i worked
EA1CK0 , jose in luarca, spain ! ok so i got a 519. he was only 539 !

i've always thought of the g5rv as a COMPROMISE antenna. i'm starting to wonder
if it's not PRETTY DARN EFFICIENT on 17 meters !?!?!?

frank. ng0n.

ps: this was a QRP contact ... 4.5 watts.

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Larry East <LVE1@inel.gov>
Subject: [642] MRF476, MRF475, J309 availability Info
Message-ID: <9511292145.AA04150@garnet.inel.gov>

For what its worth, Motorola has discontinued this item (according to Newark
Electronics). Too bad -- it was a nice (and relatively inexpensive at about
\$5.00 each) 5W HF transistor (used in CB's, etc.). The MRF475, a 15W
version, is also being (or has been) discontinued. Newark still has about
20 in stock at \$15.06 each, if anyone wants one.

(Usual disclaimer -- don't own/work for/etc. Newark Electronics or Motorola.)

72, Larry W1HUE/7

PS -- Newark also has a few hundred J309 FET's in stock at \$0.50 each, if

anyone is interested (NOT being discontinued, as far as I know...).

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: BWHITTEM@mailgw.sanders.lockheed.com
Subject: [615] ne qrp club?
Message-ID: <0bc6cac0@mailgw.sanders.lockheed.com>

can someone please send info on the new england qrp club.
tnx es 73
barry
wb1edi

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: ddonald@vikings.onecomm.com (Dave Donaldson)
Subject: [638] oops

Sorry folks, in my last email I resent the whole message I was responding to. I did not want to take up the bandwidth. So I will take up somemore and say...please forgive me I NEVER will do it again :>)

Dave, WB7DRU

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Charles Cashion <ccashion@spdmail.spd.dsccc.com>
Subject: [619] pipeline
Message-ID: <199511291548.AA04102@aplo1.spd.dsccc.com>

Gentlemen:

Paul, WB8ZJL, (last night's esteemed FOX) wrote:

paul> And what gives with the pipeline to TX?

You just now discovered the five <--> eight pipeline?
Wait till 6m is hot.
Charles

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: David Fifield <fifield@lan.nsc.com>

Subject: [631] Proud, pleased, elated...and an apology
Message-ID: <9511291135.AA24257@davef>

--part_ACE1F5FC0007965C000000008
Content-Type: Text/Plain; charset=US-ASCII
Content-Disposition: Inline

Fellow QRPers,

I've just gotta tell you all...I got my 40m version of the November QST 1 Watt CW transceiver working properly last night. The problem was the transmit offset. The design was for 20m (USB used) and of course, I'd swapped the I and Q channels to be able to listen to LSB on 40m, so with the CW offset going HIGH by 1.5KHz (I measured it), I was transmitting about 2.5KHz higher than anything I was listening to! No wonder I wasn't getting any contacts!

Fixed it with a simple mod to give me a -550Hz CW offset on tx. Upon powering up (at midnight PST) I heard VE7DXF calling CQ.... went back and got 'im first time!

MY FIRST EVER CW QSO!!! Boy am I pleased (Can you tell?)

Sooooo, I'd like to humbly apologise to you if:

- a) I QRMed you when I called someone else...
- b) I appeared to totally ignore your reply to my CQ's...

during my experimentation period.

See (some of) you at the Norcal meet this weekend.

--part_ACE1F5FC0007965C000000008
Content-Type: Text/Plain; charset=US-ASCII
Content-Disposition: Inline

72 de KE6ZBZ

Dave Fifield

--part_ACE1F5FC0007965C000000008--

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [608] Review Form

Message-ID: <199511291350.NAA25183@chuck.dallas.sgi.com>

Gang,

Here is a repost of the review form that I used.

When filling out the form:

- a. Feel free to modify
- b. Keep lines < 80 characters
- c. Don't use all CAPS :-)
- d. Good English is a must
- e. Keep to one page (60 lines) if possible
- f. Add space on each line after the colon to columnize start of information

-----cut here-----

Internet QRP-L Rig Report Form

MFR:

Address of MFR:

Designer:

Model:

Price(s):

Availability:

Size:

Weight:

PC board:

Manual:

Power :

RX Current Drain:

TX Current Drain:

Modes:

Kit?:

Bands:

LO/VFO:

Drift:

Dial/VFO Range:

RXR:

XMTR:

Filter:

Selectvty:

RIT:

Gain:

AGC:

Preamp:

Atten:

SPKR:
Metering:
Side Tone:
Output:
Internal Keyer:
QSK:
Options:
Date of Review:
Author of Review:
Comments:
--
Chuck Adams (K5FO CP-60) adams@sgi.com
Box 181150, Dallas, TX 75218-8150

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: NYOUNG@nova.wright.edu
Subject: [645] Rhetorical studies & antenna adverts, among other things
Message-ID: <01HY84TVMTK08X0HJ0@nova.wright.edu>

Jay's astute deconstruction of the rhetoric of antenna adverts caught my attention right off. HOw nice to know that I am not the only curmudgeonly cuss on here who looks at the antenna adverts and thinks "Yeah, right" every time the technical data is printed in 4 point type.

But I do have to admit that Pat's copy was better than any that I have seen. Maybe he's the guy we need to start a campaign for QRP as a way of life... Let's see.... Maybe like the radio preachers...

Or L. Ron Hubbard's ghost, still selling _Dianetics_ with the volcano of (was it?) Zebo after all these years. Hmm... Being "Fair Game" kinda makes it hard for me to keep up with the can holders. Now was that a floating needle or was my engram just cleared? Damn, I guess I better get my ethics in before command takes away my hat. Let's see... was it the Joberg first and then validation second? Or was it mistaking the Suppressive Persons Only toilet for the Wog Baiting Room that got me in this trouble.

Anyway, Pat later revealed himself (in a non-Freudian way, I might add) by admitting to having taken advertising classes in the 70s. Hell, in the 70s I was hanging around with the beautiful woman who just happened to be another guy's wife. But that's another story. At least one I don't advertise very often... Being jung and easily freudened.

Unlike Bob, who may be right about the age thing, I do remember

the chicks that Brian mentions. I remember buying the damn magazine just to stare at 'em, too. Kinda miss that. Being a week and a month from 50 and all.

But then, as those who have been to Dayton know, there's always the crowd around that one booth where the girls in bikinis try to look like they know what they're doing when they do the bunny dip to hand you your all-time-zone clock. That's clock, guys. C'mon!

73
Nils
WB8IJN &c

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: paul1@wizard.ucs.sfu.ca (Paul Erickson)
Subject: [612] SESC
Message-ID: <9511291353.AA12580@wizard.ucs.sfu.ca>

Anyone using the SESC bulletins? If so, I need to ask a couple of questions.

cheers, Paul
ve7cqk
email: paul1@wizard.ucs.sfu.ca

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [623] Solar cycle stories
Message-ID: <199511291700.KAA18217@zia.aoc.nrao.edu>

In regards to KK5NA's questions about what to expect when the solar cycle begins to improve. For those of us who have been around for a couple of solar cycles or more :-(we know what to expect. And maybe we've ignored our younger brothers in explaining what happens when the solar cycle becomes active.

Generally, it is a whole new ball game. My favorite band becomes 15M CW for operation after dinner into early evening. You can work the world on 15 and 20 easy. 15M can stay open until shortly after sundown or well into the evening. When it starts to close, it gets really "fluttery," and enough time to say 73 before its gone.

10M is a very exciting band during the solar maximum. I converted an old Kraco 23-channel CB (with crystals for each channel!) to 10M. This is a 5W AM kind. A bunch of Japanese hams also converted American CB's for 10M, using a band-plan popular at the time. Anyway, I had many QSO's on this converted CB after dinner, where I would QSO with Japanese hams S9+ everynight, 5W on both ends. Many of these QSO's were with Japanese high school students, who were using their converted CB's in their car during their lunch break. They would call CQ USA. Once in contact, you got drilled helping them with their English homework. "What's the past tense for eat, sleep and walk?" Often there were a couple of girls in the car writing down the answers. It was fun forcing the non-ham girls to talk to you over the radio, trying out their first semester English. Real fun hamming.

10M is also very hot on CW during the maximum. Using full QSK, there will be times you can hear your own signal come back to you. Send a dit, and a fraction of a second, you will hear it again, maybe twice, as it goes around the globe a time or two. A spooky sensation the first time that happens to ya.

For CW, the bottom end of 10M is generally quite active when the band is open from stations around the world. I would expect for SSB, the active part of the band will be the new 28.3-28.5 novice sub-band.

In short, the active part of the solar cycle is truly something to look forward to. It will give a whole new dimension to QRPing in the coming years, particularly on 15 and 10M. It's effects on 160-40M are minimal, however. (Well, 40 will have its better moments). So think about building that 15M QRP rig. You'll get your money's worth out of it in another year or two.

Paul NA5N

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Bruce Robertson <brucerob@epas.utoronto.ca>
Subject: [651] soldering double-sided boards
Message-ID: <Pine.SGI.3.91.951129212135.27067D-100000@blues.epas.utoronto.ca>

Several persons replied by email to my question about soldering double-sided bards. Their informed replies, and the variety of views seem to me to be of general interest to the group, especially since we all will be working with these boards more in the future kits; so I submit them here with my note of gratitude:

Most soldering courses in tech schools teach to fully flow the solder to the other side; but for amateur work, this is going to make removal of a part

later on very difficult, so the best policy is use as little solder as possible, and if it flows to a fillet on the lead below that is oK, if not; don't worry as long as the hole is filled and shiny on top. Now, if you have any doubt about the plating quality INSIDE the holes, and well you should on some ham kits; then if you don't want to inspect each hole by magnifier and light before you start for plating quality, then DO fill each to a fillet on the lead protrusion from the other side.

Hope I haven't confused the issue by giving all the pros and cons!!:-)

72, Stuart
K5KVH

On thru-hole plated boards I prefer to see solder wicked on the component leads on the opposite side of the board. If there is a void in the thru hole plating, the solder generally won't pass through the hole. That could very well lead to a cold solder joint or no connection at all. I believe mil-spec standards call for a certain amount of wicking on the opposite side of thru-hole plated boards. It's been a number of years since I've dealt with the mil-spec issues.

On the negative side, it is certainly more difficult to remove a component that is so firmly soldered onto the board.

73 OM,
Stephen Lee, AB7HI

--

About the plated thru holes:

You'll find that it works differently for some holes. There are holes that have a pad (they're tiny pads compared to non-plated through boards) on one side, and a pad on the other side. Both of these pads will have a thin copper lane attached. When soldered, these pads will wick as you say, from one side right through to the other.

Now you'll also have some pads on one side going to the ground plane (or some other large surface) on the other side. Often, the ground plane will be on the side you're NOT soldering to. In this case, the ground plane acts as a big heat sink, keeping that side of the board cool enough that solder can't wick through. Even with a lot of heat, don't expect these pads to wick.

Remember, if you use too much heat, you can decrease the life of the components you're soldering.

Those plated through holes are wonderful to solder to, making a very strong connection.

They're also hell to undo if you have to replace a component.

Let us all know how it works (or doesn't)

-Glen VE3DNL leinwebe@mcmaster.ca

--

Kinda reminds me of the old jazz musician bit about "If you have to ask, you'll never know." But then, that also applies to first year college students missing out on the point behind all those vase paintings. As in the phenomenology of perception and how the paintings reflect a few of the world that seems mutually exclusive to understanding the world as three or four dimensional space. But that's like soldering plated through holes, now that I think of it.

YOU can hope for wicking and get it. It's usually a sign of a perfectionist or someone who put all the parts on the board and then put the board on a wave soldering machine. IN your case, however, it's a sign that you noticed the unusual and thus qualify for the phenomenology of perceptions award. (Me personally, I like that little sign of wicking. It does have a downside, though: if you have to remove the part thus "wicked," you'll need a competition grade solder-slurper to get the parts out. Unless, of course, you are willing to carve the little part off the board one leg at a time and then solder-slurp the remaining part leg, solder and all, out of the offending hole on the board. Neither case is particularly pleasant.)

Personally, I wish that I had the time to get up to your neck of the woods and see that stuff. And the Attic vase painting would be also very interesting. After all, look at the correlation: vision of the world subtended by another medium which has daily meaning to our lives (or the lives of kindred souls thousands of years ago, for that matter).

Which begs the question: which came first? The acknowledgement of vision or the vision of acknowledgement?

Or: which came first? CQ? or QRZ?

73

Nils

WB8IJN &c

--

Bruce,

Solder should definitely wick up the component lead a short distance when working with plated through holes.

73,

Bruce

73, VE3UWL

Bruce G. Robertson Dept. of Classics, U. of T.

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Stan Skelton <sskelton@c1n.etc.bc.ca>
Subject: [622] Sprint II passes bench test
Message-ID: <Pine.3.89.9511290857.B3993-01000000@sparky>

Hi all...well, the OHR Sprint II (80 M) has finally been bench tested and has passed with flying colours!...The only fly in the ointment was the MFJ (something) frequency counter wouldn't take a reading from the test loop on the circuit board....something about needing a 600 ma signal before it would register....I used a fancy Icom (something) with a narrow digital filter system to align the little sprint easily though. The power output is something between 0 and 5 watts (that's all the meter could register) but looks like its getting out really spiffy! The G.O.G. that helped me is a confirmed linear bird killer but was so impressed with the little rig and all it could pick up on 80 meters (more than his fancy ICOM[something]) that I was afraid I wasn't going to get out of his shack with my little Sprint without the use of firearms!...congrats to Dick....now all I need to do is get a good 80 M antenna up and I'm away!....

btw. after a weekend of logging on with an old 2400 baud modem and paying long distance to boot, I'm putting a pox on all you guys that insist on hitting the "Y" button when your asked "include previous message?".... from now on I'm only going to read the first screen!...SO THERE!
73's Stan...VE7SKT (not a "wouff hong" winner)

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: BWHITTEM@mailgw.sanders.lockheed.com
Subject: [634] tn timer ne qrp info (got it)
Message-ID: <0bc9d110@mailgw.sanders.lockheed.com>

i have the qrp info i requested thanks to aa1ik
73
barry
wb1edi see you on 30 soon

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: prvalko <prvalko@Oakland.edu>
Subject: [610] Tuesday FOX Results
Message-ID: <Pine.OSF.3.91.951129081856.29754A-100000@saturn.acs.oakland.edu>

WOW! What a blast.

7.110

0202 KB0LMQ 569/439 MYRON CO
0208 K2NF 569/339 NORM FLA
0212 WD5GNW 339/339 CHARLIE ?
0219 W5HNS 559/559 HENRY TX
0224 KA5T 449/449 LARRY TX
0228 AK5B 559/449 BOB TX
0233 KK5NA 559/559 JOE ANOTHER TX, VERY CHIRPY JOE!

7.040 THEREABOUTS

0242 K5UP 559/559 ? OK
0243 K4JPN 559/559 STEVE GA
0245 W6ZH 449/449 ? CA
0250 W00Q 339/329 MARTY CO?
0311 WB8E 339/339 WALT MI LOCAL GROUND WAVE
0336 AB6DG 449/449 JOHN CA ALMOST 30 MINUTE DRY SPELL
0339 NU6U 339/439 MAX CA
0343 N6ULU 559/439 STAN CA Does Stan work 'em all?
0345 WA7FCU 339/449 BOB UT
0355 AB50U 339/339 TIM NM Does Tim work 'em all?
0358 KC5EQC 569/559 DON OK

18 QSOs, at least nine states, great fun! Running a Corsair 1 at 4 watts to a full wave ladder line fed dipole at 45'

I don't understand what happened to everyone between 0311 and 0336 I was calling CQ FOX constantly. And what gives with the pipeline to TX?

See you next year! 73! =paul= wb8zjl

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: pcalcand@sescva.esc.edu (PETER CALCANDY)

Subject: [648] TWINLEAD NOTES

Message-ID: <95112919323252@sescva.esc.edu>

From: SESCVA::PCALCAND "PETER CALCANDY" 29-NOV-1995 19:27:00.69

To: SMTP%"dsa@apollo.hp.com"

CC: PCALCAND

Subj: RE: Coax vs Twin-Lead (300 Ohm)

I am not a technical type but I do use 450 ohm twin-lead for my center fed zepp and have asked many of the same questions. I was told to keep the distance of 2 widths away from metal objects. You can run the line near metal objects but don't let it get withing a couple of inches. The line doesn't radiate as long as it is kept in balance. What seems to work for me is in the areas (near the metal storm window frame) I sandwich a couple of pieces of styrofoam insulation and tape them together with the wire inside. This insures a safe distance. I also suspend the wire off the roof with thin nylon fishing line. While there may be some hidden metal up there, I like to keep the feedline off the roof so when it rains and especailly snows, it doesnt affect the wire. I used to have the wire resting on the roof but when the snow buried the wire, the characteristics of the wire changed. I knew this because the adjustments on my tuner were different. As far as losing power was concerned, I don't know. The antenna seemed to work the same but without any side by side comparison you judt cant tell.

The BIG benefit of feeding your antenna with twin lead is the fact you can use the antenna on many frequencies. The SWR doesn't matter. As long as you have an antenna tuner to present a 50 ohm unbalanced load to your radio, you are in business. For all intents and purposes, twin-line and open wire line have no loss in HF frequencies. If you try to operate a radio feeding the antenna with coax with a high SWR, most of your power will go as heat and very little energy will reach the antenna. This is why most qrp mavens use wire line. If you check a coax wire chart in the handbook or a catalog you will notice the coax has different characteristics. For example, RG58(the thin cheap stuff) has a loss of around 3db at 30 mhz. (My numbers may not be right on but you will get the idea). That means for a run of 100 feet, you will lose half of your power by the time the signal gets to the antenna. THIS IS ASSUMING YOU HAVE A PERFECT MATCH!!!. If the SWR is higher than 1:1, your losses will be much greater!!

My

My advice to you is to use the twin line and do your best at keeping it away from the metal (only a couple of inches is fine) and have fun. By the way, I have been involved with qrp demonstrations at ham fests and club meetings and we use the 450 ohm stuff and really dont pay ANY attention to the metal surroundings. I believe at qrp levels , it doesnt really matter at all.

Good luck

Peter N2KPY

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: rossi@VFL.Paramax.COM (Pete Rossi)
Subject: [617] WA3NNA FOXHUNT TONIGHT ***
Message-ID: <9511291507.AA27060@gvlf6-a>

Tonight is the night...

WA3NNA FOXhunt schedule:

I am going to try something a little different...

Instead of a single 2 hour session, I am going to try 2 separate 1 hour shifts.

Thursday November 30 UTC (Wednesday evening Nov 29 in North America)

0030Z - 0130z (7:30 PM EST - 8:30 PM EST) "early shift"

0400z - 0500z (11:00 PM EST - midnight EST) "late shift"

I will spend the first 45 minutes of each period at 7040 +/- and the remainder of each period at 7110 +/-

Rigs used will be a mixture of:

OHR Classic

Drake 2B/2BQ

SB-401 @ 5 watts output

full size 40 meter inverted-vee/dipole - center @ 50' ends @ 40'

Located in SE Pennsylvania 15 mi west of Philadelphia - FM29hx

See you all there..

Pete Rossi - WA3NNA
rossi@vfl.paramax.com
Loral Defense Systems-Eagan (formerly Unisys Government Systems Group)
Valley Forge Engineering Center - Paoli, Pennsylvania

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)
Subject: [621] YET ANOTHER NAIVE QUESTION!
Message-ID: <9510298176.AA817663496@smtpgw.ccgate.dl.nec.com>

Gang:

Ok, don't laugh please. As a pretty new ham (1 year, 5 months) I need to tap the wealth of knowledge from you all veterans out there (again). Boy, I hope the "well of knowledge" never runs dry - or else I'm in BIG trouble.

Here's the question: We are at the end of sunspot Cycle 22. Bands like 10, 12, 15, 17, and even 20 are sometimes pretty pityfull. When Cycle 23 hits its peak (1999-2000?) what can I expect on our wonderful ham bands? Do all bands (160-10) exhibit pretty much 24 hr/day operation capabilities? Can I have as much fun at 3am as I'd have at 3pm? (granted, who would really have fun at 3am??? ;-)

I've read stories where during the sunspot max. that bands like 10 meters can be unbelievable in possibilities!! QRP power levels can reap huge rewards. Do 160, 80, 40 go soft during peaks, while the higher bands (20 - 10) get better? Please forgive these simple questions, but I wasn't involved in hamming during the last peak (sort of what you'd call a sun spot virgin, or well, never mind).

I'm thrilled at what I can do now (at minimum spots). I'm REALLY looking forward to what will happen in a few years. Can anybody fill me in on just how fantastic things can get?

DX fish stories welcome, but don't stretch it too far :-)
I'm like a wide-eyed kid waiting for Christmas morning!!

72/73 & tnx de Dave KK5HA (lotta dits)

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "rohre" <rohre@arlut.utexas.edu>
Subject: [630] RE: Coax vs Twin-Lead (300 Ohm)
Message-ID: <n1394475361.55634@msmailgw1.arlut.utexas.edu>

OK Dale,

This is a FAQ here, and the truth is that parallel ladder line of the high quality slotted type (Which in the ham version is usually 450 ohms characteristic impedance), is the lowest loss feedline you can practically find short of air dielectric hard line, with Nitrogen pressureization!

All twin lead applications should have a 'twist' in the lead every couple feet to balance out any stray coupling to metal. That will prevent any "loss",

actually it is stray coupling of energy, and not a loss, you don't want unbalance in the two conductors of the twin line.

It should not run parallel and close to a rain gutter, or other strip of metal. It should cross other wires and conductors at right angles. You can use screw in TV insulators to space it off the roof, side of the house, etc. and put a wood or plastic strip under even a metal window sash, and just bring it to your balun on your tuner for a high quality line. Or, up under the eaves, put a 4:1 to 9:1 balun, and come through the wall to rig with coax, if you are using it on just one band. The advantage of twin is you can load it with a tuner on all bands pretty easy, if it goes from your tuner balun to a dipole for 80M.

You are lucky to have gotten some if it is in good condition, re the plastic, and the copper is shiny, not corroded. Use it and enjoy!

If you want more info, look for Fred Bonavita's writings on it in CQ a few years back, or in QRP Quarterly.

72, Stuart K5KVH

rohre@arlut.utexas.edu

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995

From: Phil Wheeler <pcw@netcom.com>

Subject: [641] Re: Coax vs Twin-Lead (300 Ohm)

Message-ID: <Pine.3.89.9511291339.A17313-0100000@netcom3>

Generally the ladder line will be a better choice than coax. I guess the pivotal word is "near". I have been able to avoid "too near" by using stuff like fishing line to pull it away from nearby objects.

I can't give you an off-hand reference. But the fields are stay pretty near the transmission line. So you may get by with fairly close spacing. The parallel run would concern me more, because you will couple some energy into larger objects.

Another point: Coax losses at 40 meters, should be very low in 100 ft with a properly fed antenna. So, in your situation, that may be the way to go.

Phil (pcw@netcom.com)
aka w6tuh

On Wed, 29 Nov 1995 dsa@apollo.hp.com wrote:

>

>

> Hi Folks,
>
> Was just given 100' of very high quality 300 Ohm slotted twin lead.
> Anyway, I've heard that carrier current in twin lead may be
> influenced by nearby metal objects thus creating losses and stray
> RF. I'm yet to find any documentaton to support that. So is this
> the case? Losses due to nearby metal objects? I finally figured a
> way to put up a clandestine 40m mono-band dipole and am considering
> feeding it with this stuff. But, if the losses are going to be too
> great I'll use coax instead. The feedline MUST run past, right next
> to, and even parallel to several metal objects (gutters, galvanized
> flashing, etc.). I apologize if this is a stupid question but the
> ARRL books I have dedicate very little text to twin lead and focus
> mostly on ladder line and various coax. 'course that may tell me
> something already...
>
> Any constructive input you may have would be appreciated.
>
> Thanks,
> -Dale
>
> =====
> Dale S. Anderson
> Hewlett-Packard, Co
> SMDO-E&W NPI Process, Software Development Engineering
> Exeter NH, Chelmsford Ma, Roseville and Cupertino CA
> ..but telecommuting from, HP CIO-FC, Fort Collins, CO
> =====
>
>
>
>

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "rohre" <rohre@arlut.utexas.edu>
Subject: [646] RE: FT 243 Crystal Sockets
Message-ID: <n1394453062.93737@msmailgw1.arlut.utexas.edu>

Ben, and the group,

Better to make a socket of bus wire, by winding a coil of several close turns around each pin of the FT 243 crystal, and using bus wire of the size of easily obtained HC-18 or whatever small crystal socket you have, you form the bus wire and plug it into the smaller socket. A strip of bakelite or plastic glued across the bus wire pieces as a spacer will help rigidity. The added capacitance will maybe lower the frequency a tad, but so what? Carrying this idea further. Find some of the old cheap bakelite wafer diamond shaped octal

sockets of cheap 5 tube radios of yesteryear. You can drill out the two rivets that hold the two bakelite pieces sandwiching the octal tube contacts in, and remove the metal contacts and have four crystal socket fundamental pieces. Again, you get some hobby shop plastic and mount these octal female contact pieces at the half inch spacing of the FT 243 pins. I am about to have to do some adapters for a friend who is trying to use crystals.

By the way, does anyone have the following FT 243 crystals to sell? We know the commercial sources, but I mean private stock. Other crystal sizes if smaller would be considered. Space limits him to no larger crystals.

What is needed are several in the following ranges: 7050 to 7060; 14050 to 14060, (which can be the 40M half values) and finally some 1/3 values to triple to 21050 to 21060. The friend is interested in a CW contest in Dec., his regular rig in the shop, and so he is determined to use an old Heath he has. But, he has no VFO or crystals for it, but is willing to buy some crystals. This is not for me, but for Ray Redwood, KC5HCX, (author of "QTC" a history of Maritime radio) Please contact him directly at 512-442-1311 in Austin TX, CST zone, as he does not have Internet access. As it is a tube rig, it has FT 243 sockets, but if he gets HC-18 crystals, I can adapt them, having a number of those sockets. An FT 243 crystal cut for 32 pf should work OK in this old Heathkit transmitter.

thanks in advance, if any one can help Ray.
72 and 73,
Stuart K5KVH
rohre@arlut.utexas.edu

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: [614] Re: GM-30 Review de K5FO
Message-ID: <95Nov29.095347est.14503-1+31@hooch.CC.Lehigh.EDU>

> Thanks for the nice review of the GM-30. By the way, I forget - did you
> once post the template of your review form. I have always liked this format
> and we need to figure how to get this info over to the QRP-L WWW page so
> that when one of your reviews or a review from others using your form comes
> in that we can catalog all this great stuff. What I like about your
> template is that it answers questions of features the unit may or may not
> have - ie AGC, RF Gain control etc.
>
> Anyway could you please post your qrp form again (ascii format) so I can use
> for future reviews (I have an OHR Quad bander, OHR Explorer II for 30 meters
> and a SWL GM-20 backed up on the bench with a couple of Wilderness KCT-1).

Bob,

A blank form, as well as reviews of books/rigs/etc are available via anon FTP or the list server:

Archive: reviews (path: qrp-l/reviews) -- Files:

auttek.rf1 (1 part, 5212 bytes) -- Auttek RF-1 Antenna Analyzer - N2CX
blank.form (1 part, 1049 bytes) -- Blank Review Form - K5FO
dans.nw8020 (1 part, 3935 bytes) -- Dans NW80/20 for 40M - WJ2V
mfj.90xx (1 part, 3281 bytes) -- MFJ 9030/9040 - NA5N
norcal.40a (1 part, 6470 bytes) -- NorCal 40a - K5FO
norcal.sierra (1 part, 1993 bytes) -- NorCal Sierra - K5FO
ohr.explorer30 (1 part, 2441 bytes) -- OHR Explorer for 30M - K5FO
radiokit.qrp30 (1 part, 2750 bytes) -- RadioKit QRP30 - WJ2V
swl.swl80 (1 part, 6946 bytes) -- SWL SWL80 - K5FO
ne4040.mcq (1 part, 13874 bytes) -- New England QRP 4040 - WA8MCQ
ark4.mcq (1 part, 18990 bytes) -- S&S Engineering rig - WA8MCQ
introrfd.mcq (1 part, 4545 bytes) -- Intro to RF Design by W7ZOI
tac1.mcq (1 part, 10004 bytes) -- TAC1, S&S Engineering - WA8MCQ
yhavol2.mcq (1 part, 7202 bytes) -- K7YHA QRP book Vol 2 - WA8MCQ
ark40.mcq (1 part, 13528 bytes) -- ARK40/S&S Engineering - WA8MCQ
rfbook.mcq (1 part, 5846 bytes) -- RF Circuit Design by Bowick
ingramqrp.mcq (1 part, 7905 bytes) -- Dave Ingram K4TWJ QRP book
amidonbln.mcq (1 part, 7922 bytes) -- W2FMI balun from Amidon
yhavol1.mcq (1 part, 7401 bytes) -- K7YHA QRP book Vol 1 - WA8MCQ
amidonbook.mcq (1 part, 3722 bytes) -- Their big one, not the flyer
qrpnotebook.mcq (1 part, 13732 bytes) -- W1FB, second one (not blue)
commqtly.mcq (1 part, 8950 bytes) -- Communications Quarterly mag
keyskeys.mcq (1 part, 7171 bytes) -- K4TWJ book on CW keys
gqrp.gqxx (1 part, 2256 bytes) -- GQRP Club GQ40/GQ20 xcvrs - N8ET
yhabook3.mcq (1 part, 10722 bytes) -- Volume 3 of K7YHA on QRP

73

Jim N3VXI

From qrp-l@lehigh.edu Thu Nov 30 03:06:00 1995
From: Johnson Russ <JohnsonR@ind2.indy.tce.com>
Subject: [605] RE MFJ 9020 Mobile
Message-ID: <30BC7CCC@MSMAIL.INDY.TCE.COM>

Pat,

I used my MFJ 9020 in the car for a few days in March. I don't recall any major problem with ignition noise. Even had a couple of DX contacts.

		TX	RX			
3/17/95	17:28	CM2CK	CUBA	599	599	
3/17/95	19:54	W5EHM	BARRY	TX	579	589
3/18/95	20:56	N0USB	BILLY	CO	579	569
3/19/95	13:00	VP9GD	PAG		599	599
3/21/95	21:36	AA1IB/4	BARNABY		599	599
3/22/95	23:53	KB5RCC	KELLY	TX	579	579
3/23/95	20:49	K4JGA	BILL	FL	579	
3/24/95	22:48	N1CER	CHARLIE		579	559
	23:09	WA4AIQ	ANGELO	FL	579	569
	23:35	VE1BN	DON	NS	599	569

Russ N9RJ
johnsonr@indy.tce.com

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Phil Wheeler <pcw@netcom.com>
Subject: [640] Re: MORE dx on 17 meters
Message-ID: <Pine.3.89.9511291311.A17313-0100000@netcom3>

I've been pretty happy with my G5RV. It loads well with my Kenwood AT-50 automatic antenna tuner most everywhere but on 30 meters (and does fine there with my MFJ-949). It seems to hold its own with my multiband trap dipole on 40 and 20 -- and works very well on 75 m SSB. Considering it runs N-S (E-W would be better in Calif) and is only about 25 ft up, I have no complaints. In fact, I'm going to put up another one for my other operating location (since that is where my QRP equipment is, this location being a recliner in the living room where I am hanging out while recovering from surgery).

Phil (pcw@netcom.com)
aka w6tuh

On Wed, 29 Nov 1995, frank paxton iii wrote:

> i continue to be amazed by 17 m. today at 11am local (kansas city) i worked
> EA1CK0 , jose in luarca, spain ! ok so i got a 519. he was only 539 !
>
> i've always thought of the g5rv as a COMPROMISE antenna. i'm starting to wonder
> if it's not PRETTY DARN EFFICIENT on 17 meters !?!??!
>
> frank. ng0n.
>
>
> ps: this was a QRP contact ... 4.5 watts.

>
>
>

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: JCoote@aol.com
Subject: [626] Re: OHR
Message-ID: <951129121743_119884882@emout04.mail.aol.com>

On the subject of headphones...

Many of the phones for 8 ohm use are more like 50 to 150 ohms. They are a lighter load for an audio amp and (a health benefit) won't blow your eardrums out when you first put them on. The higher value means you won't have to turn the volume when changing from speaker to phones.

I've had good luck with plain old Radio Shack mono headphones. They cost somewhere around \$8 to \$12 I believe. I've used 'em on QRP radios and other HF and VHF radios. They may not have music quality fidelity, but you only need a 300-1200 Hz response for CW and 200-3000 Hz for voice anyway.

These cheapie phones are lighter and usually more comfortable than the old military "cans". Phones "made specially" for SWL aren't much better than the RS type but cost a lot more.

BTW, cheap stereo phones usually can be converted to mono. Snip off the old plug, shield solders to shield or ground on the plug. Red and white are soldered to the tip connection on the plug.

73, Jay
WB6AAM

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: ak119@lafn.org (Rothan Maxwell)
Subject: [603] Re: QRP Philosophical questions
Message-ID: <199511290805.AA28830@lafn.org>

Hello QRP Gang!

>Is QRP into a high-ERP antenna system still QRP? It seems
>to me that it is -- that it's "the QRP right thing to do"

>to try and get the most out of your antenna system.

Yep, QRP is running 5 watts or less (at least on CW) into your antenna; regardless of the gain of the antenna.

BTW, does it not follow, that an operator who elects to use a low tech mono band kit rig, is equal to the operator that elects to run a state of the art Yeacomwood? After all; 5 watts is 5 watts. In other words, the 5 watt power limit (10 watts on SSB) is the defining, unifying, and equalizing principle for all QRPers. So; it really does not matter what rig you run, or who built it, so long as you run 5 watts (10 watts SSB) or less. This seems reasonable to me, How about You?

>If I'm listening for the fox, but don't hear him and
>someone asks if the frequency is in use, what's the Right
>Answer? To my mind, if I've heard him and am just waiting
>my turn, the freq is in use. If I haven't heard him yet,
>it's not.

I agree.

73/72's

de max nu6u < nu6u@w6trw.ampr.org >

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: bkmak@airmail.net (Bob Kmak)
Subject: [607] Re: QRP philosophical questions
Message-ID: <199511291312.HAA20559@server.iadfw.net>

>Is QRP into a high-ERP antenna system still QRP? It seems to me that it is
>-- that it's "the QRP right thing to do" to try and get the most out of your
>antenna system. But if my five watts into a good antenna system can crush a
>signal from 100 watts into the infamous "cruddy dipole" am I QRP? If I put 5
>watts into the Aracebo(sp?) dish, am I QRP?

Well, the problem is that it's difficult to measure ERP in a universal way

that would be practical to do. Almost anybody can measure transmitter output power, but measuring the effective gain of an antenna system; including transmission line loss, is probably too unruly for everyday (and contest scoring) use.

Your point is a good one though; a 5 watt station could have a stronger signal than a 100 watt station (and would probably "hear" better).

73

Bob KC5RAS

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: [606] RE: QRP philosophical questions (longer than I intended)
Message-ID: <Pine.PMDF.3.91.951129070536.543301202B-100000@utkvx.utk.edu>

On Tue, 28 Nov 1995, Dave Donaldson wrote:

>

> I have not kept up with the complete thread but keep in mind.
5 watts into a dipole is still 5 watts but 5 watts into a beam with 3 dbd (dipole reference) is now 10 watts exp.

A note on ERP:

Effective radiated power is always measured as either in a favored direction or in a favored plane (the latter apt especially to verticals, most applicable to line-of-sight paths at VHF and up). It is an operational concept relative to antenna patterns, not to power at the source. If you start with 5 wats and (magically) have no line losses, hardware losses, loading coil losses, etc.), you have 5 watts radiating from the antenna.

In old repeater calculations, you had to take the TX output power, subtract the line losses, then add any antenna gain IN THE LINE OF SIGHT PLANE (this last point often overlooked, since antenna manufacturers specified their gain in this plane and it was the plane the repeater operator was interested in).

For maximum ERP from a QRP transmitter and a given antenna, place the final amplifier with a fixed power level at the antenna feedpoint, thus eliminating line and connector losses to the absolute minimum. Of course, there are other problems to overcome in such a system, but it is the least lossy, since the amplifier can be matched directly to the feedpoint impedance of the antenna, whether that is a simple or complex impedance. One rule of doing more with less power or less anything is to

use what you have more efficiently, which here translates into wasting as little of the power you do have on heating wires and connectors. Of course, feeding this system with a driving signal and DC might use more AC or battery power to keep everything under control, etc. Hence, to determine efficiency on a standard scale would require a definition which everyone accepted of where one would measure efficiency. At present, we seem only to do limited comparisons with each standard we apply: this rig draws more current on receive than that one; this type of antenna is a more efficient radiator than that type, etc.

ERP applied to beams is nothing more than an extrapolation from gain. As I have previously noted, gain in the direction of a desired station may permit greater efficiency and lower QRM to others in other directions from your station. If I can copy Jones with a dipole, then with a Yagi with gain, I may be able to reduce power and sustain communications. Not only does the Yagi place less power in undesired directions, thereby providing less QRM to others, that power is further lowered as I lower my overall output due to antenna gain. In this case, I am doing the same with Jones with either antenna--maintaining comfortable communications--but I may be doing more for others on the band by doing less to them, that is, by giving them less QRM to fight through in their effort to communicate.

Of course, the most convenient highly directive gain antennas available commercially are expensive and require maintenance commitments. But wire beams and wire arrays can also be cheap and effective. A parasitical EDZ close spaced beam might have over 14 dBi gain, about the same as a long-boom 4 element Yagi or even a 5 element Yagi, but it will require a fixed site--although it might be reversible. I have modeled a lazy-H configuration on 10 meters with EDZ style dimensions with a bidirectional gain of about 15 dBi each way at 40' above ground. I know of shortened beams with only a bit of gain over a dipole, but excellent f-b ratios, which is an aid to communications--and buildable with hardware store materials.

Money, space, and time are all limiting factors in system design. Within those limits, we should be designing the most efficient systems we can put into place. Doing more with less does not mean making our system as poor as possible within time, money, and space limits: it means constantly searching for ways to make the system maximally efficient within those limits. We seem to keep looking for the kit or rig that will make communications most effective and efficient for us. We should, in my view, extend the search to feed and radiating systems also. That means periodically reevaluating the space, time, and money limitations over and against all the antenna and feedline ideas we have acquired to see if we can do it a little more efficiently. Some of my best antennas relative to a given set of space, time, and money considerations applicable at the time have been cheap, even if those antennas are not

relevant to my present situation.

Efficiency and effectiveness everywhere in the system: that to me is what QRP is all about. Power is only a convenient starting point. The more efficient everything else in the system (including operator skill), the less power you need for communications. Efficiency lets you do with microwatts what others can only do with kilowatts.

I should apologize for letting an explanation of ERP turn into a sermon--an inefficiently written sermon at that.

-73-

LB, W4RNL

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995

From: ddonald@vikings.onecomm.com (Dave Donaldson)

Subject: [636] RE: QRP philosophical questions (longer than I intended)

Some comments on my comments

> Effective radiated power is always measured as either in a favored
> direction or in a favored plane (the latter apt especially to verticals,
> most applicable to line-of-sight paths at VHF and up).

In an effort to be brief I was not as precise as I should have been. This is true. However you will find at low heights and distances greater than a mile the favored plane will be the ground. Further, with vhf and above, if you're in the city the scattering from surrounding objects will fill in a lot of the signal and the favored plane will disappear. I have seen this at 800 mhz (we use qrp in cellular to, 5 watts out...) 90 degree antennas lose a lot of directivity when surrounded by scatterers such as office buildings.

By the way let me make this clear...I think that 5 WATTS is qrp and if someone can get 100w ERP out great! It's still qrp! I just like a good discussion :>)...
.

Dave WB7DRU

ddonald@vikings.onecomm.com

It is an

> operational concept relative to antenna patterns, not to power at the
> source. If you start with 5 watts and (magically) have no line losses,
> hardware losses, loading coil losses, etc.), you have 5 watts radiating
> from the antenna.

>

> In old repeater calculations, you had to take the TX output power,
> subtract the line losses, then add any antenna gain IN THE LINE OF SIGHT
> PLANE (this last point often overlooked, since antenna manufacturers
> specified their gain in this plane and it was the plane the repeater
> operator was interested in).
>
> For maximum ERP from a QRP transmitter and a given antenna, place the
> final amplifier with a fixed power level at the antenna feedpoint, thus
> eliminating line and connector losses to the absolute minimum. Of
> course, there are other problems to overcome in such a system, but it is
> the least lossy, since the amplifier can be matched directly to the
> feedpoint impedance of the antenna, whether that is a simple or complex
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> use what you have more efficiently, which here translates into wasting as
> little of the power you do have on heating wires and connectors. Of
> course, feeding this system with a driving signal and DC might use more
> AC or battery power to keep everything under control, etc. Hence, to
> determine efficiency on a standard scale would require a definition which
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> rig draws more current on receive than that one; this type of antenna is
> a more efficient radiator than that type, etc.
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> I have previously noted, gain in the direction of a desired station may
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> from your station. If I can copy Jones with a dipole, then with a Yagi
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> providing less QRM to others, that power is further lowered as I lower my
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> with Jones with either antenna--maintaining comfortable
> communications--but I may be doing more for others on the band by doing
> less to them, that is, by giving them less QRM to fight through in their
> effort to communicate.
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> Of course, the most convenient highly directive gain antennas available
> commercially are expensive and require maintenance commitments. But wire
> beams and wire arrays can also be cheap and effective. A parasitical EDZ
> close spaced beam might have over 14 dBi gain, about the same as a
> long-boom 4 element Yagi or even a 5 element Yagi, but it will require a
> fixed site--although it might be reversible. I have modeled a lazy-H
> configuration on 10 meters with EDZ style dimensions with a bidirectional
> gain of about 15 dBi each way at 40' above ground. I know of shortened
> beams with only a bit of gain over a dipole, but excellent f-b ratios,
> which is an aid to communications--and buildable with hardware store
> materials.
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> Money, space, and time are all limiting factors in system design. Within
> those limits, we should be designing the most efficient systems we can
> put into place. Doing more with less does not mean making our system as
> poor as possible within time, money, and space limits: it means
> constantly searching for ways to make the system maximally efficient
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> over an against all the antenna and feedline ideas we have acquired to
> see if we can do it a little more efficiently. Some of my best antennas
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> what QRP is all about. Power is only a convenient starting point. The
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> the less power you need for communications. Efficiency lets you do with
> microwatts what others can only do with kilowatts.
>
> I should apologize for letting an explanation of ERP turn into a
> sermon--an inefficiently written sermon at that.
>
> -73-
> LB, W4RNL
>
>

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: "Robert J. Gobrick" <rgobrick@public.compuserc.nf.ca>
Subject: [649] RE: QRP philosophical questions (longer than I intended)
Message-ID: <199511300116.VAA18015@public.compuserc.nf.ca>

LB and QRP-L gang,

If it wasn't that Kurt N Sterba in his Worldradio Aerials column HADN'T mentioned LB's name a while back I would have sworn that LB was KNS - nahhh. Maybe Kurt was trying to take us on a goose chase.. nahhh. Anyway it sort of makes you wonder - LB knowing all this stuff about antennas and aerials . nahhh

Thanks Kurt - I mean LB..

73/72 Cheep cheep Bob V01DRB/WA6ERB

At 08:07 11/29/95 EST, you wrote:

>On Tue, 28 Nov 1995, Dave Donaldson wrote:

>>

>> I have not kept up with the complete thread but keep in mind.

>5 watts into a dipole is still 5 watts but 5 watts into a beam with 3 dbd

>(dipole reference) is now 10 watts exp.

>A note on ERP:

.

>I should apologize for letting an explanation of ERP turn into a

>sermon--anm inefficiently written sermon at that.

>

>-73-

>LB, W4RNL

>

>

>

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| Bob Gobrick - VO1DRB/WA6ERB/VE2DRB - Newfoundland, Canada |
| QRP'er Galore - ARCI, GQRP, NORCAL, NEQRP, COQRP, MIQRP, NWQRP |
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|                bgobrick@terra.nlnet.nf.ca |
| Compuserve:   70466.1405@compuserve.com |
|-----
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From qrp-l@lehigh.edu Thu Nov 30 03:06:00 1995

From: cebik@UTKVX.UTCC.UTK.EDU

Subject: [650] RE: QRP philosophical questions (longer than I intended)

Message-ID: <Pine.PMDF.3.91.951129204353.543761983K-100000@utkvx.utk.edu>

On Wed, 29 Nov 1995, Robert J. Gobrick wrote:

> LB and QRP-L gang,

>

> If it wasn't that Kurt N Sterba in his Worldradio Aerials column HADN'T

> mentioned LB's name a while back I would have sworn that LB was KNS - nahhh.

> Maybe Kurt was trying to take us on a goose chase.. nahhh. Anyway it sort

> of makes you wonder - LB knowing all this stuff about antennas and aerals

> .. nahhh

>

> Thanks Kurt - I mean LB..

Bob (and all),

I would like to assure you that I am not Kurt N Sterba. But, of course, that will not help, because even Kurt N Sterba would assure you that he

is not Kurt N Sterba. Most folks worry when Kurt says harsh things about them; I worry when he says kind things about me--after all, he does wear a second shoe, and it has not yet dropped. I think I may be safe so long as I do not sell an antenna and have to inflate its qualities beyond reality. It is really more fun to figure out how they really do work--and how well or poorly relative to your tasks at hand.

-73-

KN....(scratch that) LB, W4RNL

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995

From: Pat Taber <ptaber@logiccraft.com>

Subject: [611] Re: Testosterone, insecurity and QRO advertisements

Message-ID: <199511291353.IAA110662@nss2.CC.Lehigh.EDU>

>If you buy these products you too can STOMP, CRUSH, PUNCH THROUGH the
>competition. The ads appear to be aimed at weekend warriors- (QRO contesters)
>as well as those unfortunates we sometimes refer to as jammers. If your
>co-workers and boss laugh at you, your diminutive compact can't accelerate
>above 50, and your kids won't obey your orders, don't worry.... you can
>become a radio rambo on weekends and "punch through those pile-ups" as one
>advertiser said.
>

I dunno -- I think it reflects more on the person obsessive enough to notice than on tired advertising cliches. But we could try out some new copy:

"The Azimuthblaster 1500-T -- the Texas kilowatt that politely negotiates its way through pileups world-wide."

"Try the D-Load 50 antenna system. No radials, no tuning and no QSOs. Nobody listens to you anyway? Buy the D-Load 50 today!"

"You're not like other hams. You don't just operate weekends. You're one of the empty-lived few with time on their hands and more dollars than sense. You need the Smashcraft 40-40. With 40 elements on 40 Meters you need to file an environmental impact statement just to rotate this one. And with a 3-db beamwidth the diameter of a human hair, you can hear a field mouse pee on a transmission line half a planet away. Yet, with its 2Hz bandwidth, operating becomes more of a challenge -- you can remain stuck in a pileup long after the milliwatters have gotten their fifth insurance contact. Smashcraft -- Life's too long for QRO."

>>>==>PStJTT

Bob KC5RAS

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: Pat Taber <ptaber@logiccraft.com>
Subject: [633] RE: Testosterone, insecurity and QRO advertisements
Message-ID: <199511291936.0AA101765@nss2.CC.Lehigh.EDU>

```
>I remember the days (cuz I was an impressionable teen back then) in the early
>70's when 73 magazine used scantily clad models holding obsuring radio gear as
>their cover photoes.
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Darn. Too many meals cooked in aluminum pots, I guess. I know I was reading '73 in the early 70's and I don't remember the covers. I vaguely remember one ad for something like an SSTV scan converter or some such being held by a bikini-clad YL who looked as confused as the reader about why she was there.

```
>I guess things are better these days since they don't use sleaze to sell radio
>gear.....yet.
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I suppose. I mean I know I'm supposed to suppose, I know how I'm legally required to denounce it and all, but in my (ealy 70's) advertising classes it was noted that the one thing that would get the attention of both men and women was a photograph of a woman. Even a photo showing just a woman's hand holding the product makes it more interesting. We are human despite all legislative efforts to the contrary.

>>>==>PStJTT

Patrick Taber
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Also known as: KC1TD

From qrp-1@lehigh.edu Thu Nov 30 03:06:00 1995
From: JEVERHART@cayman.vf.mmc.com
Subject: [629] Re: Tuesday FOX Results
Message-ID: <951129125611.2267610a@carib.vf.mmc.com>

Paul, you wrote, in part:

>I don't understand what happened to everyone between 0311 and 0336 I was
>calling CQ FOX constantly. And what gives with the pipeline to TX?

Great results for you, at least for OTHER folks. I listened for most of the period without hearing you or, in fact, anybody working you! There were some weak carriers now and then, but couldn't discern any known qrp-l list members.

I have tried religiously (well, at least respectfully) for the fox since my turn in the barrel quite a while ago. 40 meters on fox nights seems to be a black hole at night here in South Jersey! In fact, looking over the fox results, it seems like there are few "hits" in the NJ/NY/PA area. Is it lack of participants here? Or am I deaf at night? :-).

OTOH, condx in the QRP contests are not too bad. Just somethin' about the fox hunt I guess! We'll see how Pete, NNA sounds tonite. He's about 30 miles away, usually a poor bet on 40 after dark.

72/73,

Joe E., N2CX

From qrp-l@lehigh.edu Thu Nov 30 03:06:00 1995
From: Phil Wheeler <pcw@netcom.com>
Subject: [639] Re: YET ANOTHER NAIVE QUESTION!
Message-ID: <Pine.3.89.9511291348.A17313-01000000@netcom3>

On your question regarding expectation for the solar max: Yeah, it is pretty fantastic what you can do on 10 m (or even 15m).

I suspect that the QRP kit producers are already figuring on how to meet the need (not many of the current qrp rigs deal with bands above 20 or 17 meters). Generally you can expect 20 to be good almost around the clock, but not 10 or 15 -- at least that's how I remembler it from last time around. I suspect Radio Shack may resurrect their little 10 meter rig, too. For the money, it was pretty nifty.

We truly have some neat times coming up!

Phil (pcw@netcom.com)
aka w6tuh